

**EXHIBIT A**  
**PENDING CLAIMS**  
**U.S. Serial No. 09/592,685 (4100.000582; UM 926 P2C1)**

40. (Twice Amended) A method for binding a transforming growth factor  $\beta$  (TGF- $\beta$ ) protein in a sample, comprising contacting said sample with a purified mammalian LTBP-3 protein or polypeptide under conditions effective to allow binding of said LTBP-3 protein or polypeptide to said TGF- $\beta$  protein; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

43. (Amended) The method of claim 40, wherein said sample is located within an animal and said LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- $\beta$  in said animal.

44. (Amended) A method of binding TGF- $\beta$ , comprising contacting a composition comprising TGF- $\beta$  with a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$ ; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

45. (Amended) The method of claim 44, wherein said composition comprising TGF- $\beta$  is located within an animal and said composition comprising said LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- $\beta$  in said animal.

46. (Amended) A method of binding TGF- $\beta$ , comprising providing to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

52. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  regulates TGF- $\beta$  activity in said animal.

53. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  modulates the activation of TGF- $\beta$  in said animal.

54. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  modulates the activation of latent complexes that comprise TGF- $\beta$ , thereby regulating TGF- $\beta$  activity.

55. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the extracellular matrix in said animal.

56. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the bone matrix in said animal.

57. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to connective tissues in said animal.

58. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the cell surface of cells in said animal.

59. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  protects TGF- $\beta$  from proteolytic attack and activation in said animal.

60. (Amended) The method of claim 46, wherein LTBP-3 binding to TGF- $\beta$  protects TGF- $\beta$  from proteolytic attack and activation during wound repair or tissue healing in said animal.

61. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide is a recombinant protein or polypeptide prepared by expressing an LTBP-3-encoding DNA segment in a recombinant host cell and purifying the expressed LTBP-3 protein or polypeptide away from total recombinant host cell components.

62. (Amended) The method of claim 46, wherein said TGF- $\beta$  is located within a tissue healing, wound repair tissue site or bone progenitor tissue site of said animal and wherein said LTBP-3 protein or polypeptide is provided to said tissue site.

63. The method of claim 62, wherein said TGF- $\beta$  is located within a tissue healing or wound repair tissue site of said animal.

64. The method of claim 62, wherein said TGF- $\beta$  is located within a bone progenitor tissue site of said animal.

69. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about thirty contiguous amino acids present in SEQ ID NO:4.

70. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about fifty contiguous amino acids present in SEQ ID NO:4.

72. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide exhibits between 91% and about 99% identity to the amino acid sequence set forth in SEQ ID NO:4.

74. (Amended) The method of claim 46, wherein said LTBP-3 protein or polypeptide comprises the amino acid sequence of SEQ ID NO:4.

75. (Amended) A method of binding TGF- $\beta$  within an extracellular matrix or connective tissue site of an animal, comprising contacting said tissue site with a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

76. (Amended) A method of binding TGF- $\beta$  within a repair or bone progenitor tissue site of an animal, comprising contacting said tissue site with a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

78. (Amended) A method of binding TGF- $\beta$ , comprising administering to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide binds TGF- $\beta$  and comprises at least fifteen contiguous amino acids present in SEQ ID NO:4 and exhibits at least 90% identity to the amino acid sequence set forth in SEQ ID NO:4.

**EXHIBIT B**  
**PENDING CLAIMS**

**U.S. Serial No. 09/592,685 (4100.000582; UM 926 P2C1)**

40. (Twice Amended) A method for binding a transforming growth factor  $\beta$  (TGF- $\beta$ ) protein in a sample, comprising contacting said sample with a purified mammalian [LTBP-2 or] LTBP-3 protein or polypeptide under conditions effective to allow binding of said [LTBP-2 or] LTBP-3 protein or polypeptide to said TGF- $\beta$  protein; wherein said [LTBP-2 or] LTBP-3 protein or polypeptide [comprises at least fifteen contiguous amino acids present in SEQ ID NO:2 or SEQ ID NO:4, respectively] specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

43. (Amended) The method of claim 40, wherein said sample is located within an animal and said [LTBP-2 or] LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- $\beta$  in said animal.

44. (Amended) A method of binding TGF- $\beta$ , comprising contacting a composition comprising TGF- $\beta$  with a composition comprising a purified mammalian [LTBP-2 or] LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$ ; wherein said [LTBP-2 or] LTBP-3 protein or polypeptide [comprises at least fifteen contiguous amino acids present in SEQ ID NO:2 or SEQ ID NO:4, respectively] specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

45. (Amended) The method of claim 44, wherein said composition comprising TGF- $\beta$  is located within an animal and said composition comprising said [LTBP-2 or] LTBP-3 protein or polypeptide is administered to said animal in an amount effective to bind TGF- $\beta$  in said animal.

46. (Amended) A method of [using an LTBP-2 or LTBP-3 protein, polypeptide or peptide, comprising providing to an animal a biologically effective amount of a purified mammalian LTBP-2 or LTBP-3 protein, polypeptide or peptide that comprises at least fifteen contiguous amino acids present in SEQ ID NO:2 or SEQ ID NO:4, respectively] binding TGF- $\beta$ , comprising providing to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

**Claims 47-51 canceled**

52. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  regulates TGF- $\beta$  activity in said animal.

53. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  modulates the activation of TGF- $\beta$  in said animal.

54. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  modulates the activation of latent complexes that comprise TGF- $\beta$ , thereby regulating TGF- $\beta$  activity.

55. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the extracellular matrix in said animal.

56. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the bone matrix in said animal.

57. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to connective tissues in said animal.

58. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  targets TGF- $\beta$  to the cell surface of cells in said animal.

59. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  protects TGF- $\beta$  from proteolytic attack and activation in said animal.

60. (Amended) The method of [claim 51, wherein LTBP-2 or] claim 46, wherein LTBP-3 binding to TGF- $\beta$  protects TGF- $\beta$  from proteolytic attack and activation during wound repair or tissue healing in said animal.

61. (Amended) The method of [claim 51, wherein said LTBP-2 or] claim 46, wherein said LTBP-3 protein or polypeptide is a recombinant protein or polypeptide prepared by expressing an [LTBP-2-encoding or] LTBP-3-encoding DNA segment in a recombinant host cell and purifying the expressed [LTBP-2 or] LTBP-3 protein or polypeptide away from total recombinant host cell components.

62. (Amended) The method of claim [51] 46, wherein said TGF- $\beta$  is located within a tissue healing, wound repair tissue site or bone progenitor tissue site of said animal and wherein said [LTBP-2 or] LTBP-3 protein or polypeptide is provided to said tissue site.

63. The method of claim 62, wherein said TGF- $\beta$  is located within a tissue healing or wound repair tissue site of said animal.

64. The method of claim 62, wherein said TGF- $\beta$  is located within a bone progenitor tissue site of said animal.

**Claims 65-68 canceled**

69. (Amended) The method of [claim 51, wherein said LTBP-2 or] claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about thirty contiguous amino acids present in [SEQ ID NO:2 or SEQ ID NO:4, respectively] SEQ ID NO:4.

70. (Amended) The method of [claim 51, wherein said LTBP-2 or] claim 46, wherein said LTBP-3 protein or polypeptide comprises at least about fifty contiguous amino acids present in [SEQ ID NO:2 or SEQ ID NO:4, respectively] SEQ ID NO:4.

**Claim 71 canceled**

72. (Amended) The method of [claim 51, wherein said LTBP-2 or] claim 46, wherein said LTBP-3 protein or polypeptide exhibits between 91% and about 99% identity to the amino acid sequence set forth in [SEQ ID NO:2 or SEQ ID NO:4, respectively] SEQ ID NO:4.

**Claim 73 canceled**

74. (Amended) The method of [claim 51, wherein an LTBP-3 protein comprising the amino acid sequence of SEQ ID NO:4 is provided to said animal] claim 46, wherein said LTBP-3 protein or polypeptide comprises the amino acid sequence of SEQ ID NO:4.

75. (Amended) A method of [using an LTBP-2 or LTBP-3 protein or polypeptide, comprising administering to an animal a purified mammalian LTBP-2 or LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-2 or LTBP-3 protein or polypeptide specifically binds TGF- $\beta$  and comprises at least fifteen

contiguous amino acids present in SEQ ID NO:2 or SEQ ID NO:4, respectively] binding TGF- $\beta$  within an extracellular matrix or connective tissue site of an animal, comprising contacting said tissue site with a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

76. (Amended) A method of binding TGF- $\beta$  within a repair or bone progenitor tissue site of an animal, comprising contacting said tissue site with a purified mammalian [LTBP-2 or] LTBP-3 protein or polypeptide[, or a nucleic acid that expresses said LTBP-2 or LTBP-3 protein or polypeptide, to provide] in an amount [of said LTBP-2 or LTBP-3 protein or polypeptide] effective to bind TGF- $\beta$  in said animal; wherein said [LTBP-2 or] LTBP-3 protein or polypeptide [comprises at least fifteen contiguous amino acids present in SEQ ID NO:2 or SEQ ID NO:4, respectively] specifically binds to TGF- $\beta$ 1 and exhibits at least 90% identity to the amino acid sequence of SEQ ID NO:4.

**Claim 77 canceled**

78. (Amended) A method of binding TGF- $\beta$ , comprising administering to an animal a composition comprising a purified mammalian LTBP-3 protein or polypeptide in an amount effective to bind TGF- $\beta$  in said animal; wherein said LTBP-3 protein or polypeptide binds TGF- $\beta$  and comprises at least fifteen contiguous amino acids present in SEQ ID NO:4 [or] and exhibits at least 90% identity to the amino acid sequence set forth in SEQ ID NO:4.